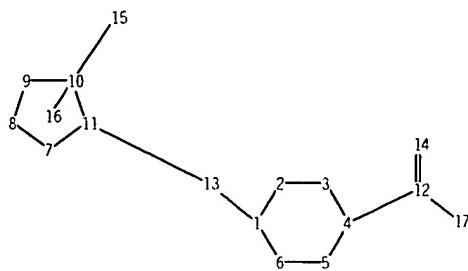
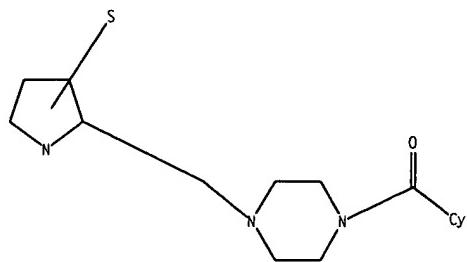


09 / 242,461

February 27, 2001



chain nodes :

12 13 14 15 17

ring nodes :

1 2 3 4 5 6 7 8 9 10 11

chain bonds :

1-13    4-12    11-13    12-14    12-17

ring bonds :

1-2    1-6    2-3    3-4    4-5    5-6    7-8    7-11    8-9    9-10    10-11

**exact/norm bonds :**

1-2    1-6    1-13    2-3    3-4    4-5    4-12    5-6    7-8    7-11    8-9    9-10    10-11

12-14 12-17

exact bonds :

11-13

Match Level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom  
10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS  
17:Atom

=> d his

(FILE 'HOME' ENTERED AT 17:37:36 ON 27 FEB 2001)

FILE 'REGISTRY' ENTERED AT 17:37:42 ON 27 FEB 2001

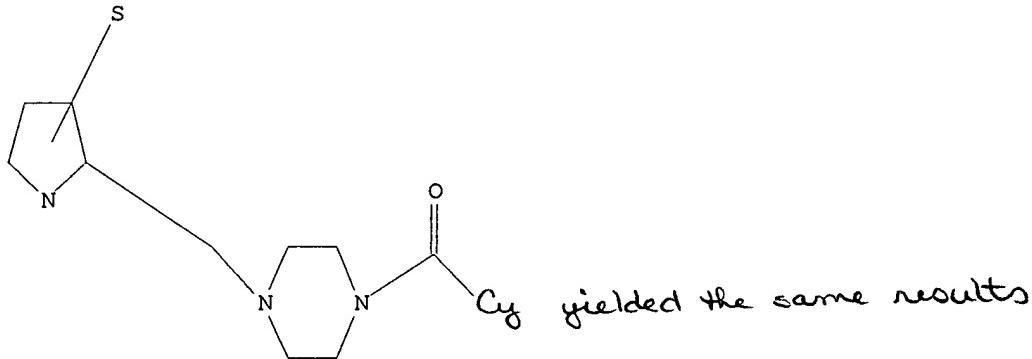
L1                   STRUCTURE UPLOADED  
 L2                   QUE L1  
 L3                   1 S L2  
 L4                   17 S L2 SSS FUL

FILE 'CPLUS' ENTERED AT 17:38:20 ON 27 FEB 2001

L5                   3 S L4

=> d 12

L2 HAS NO ANSWERS  
 L1                   STR



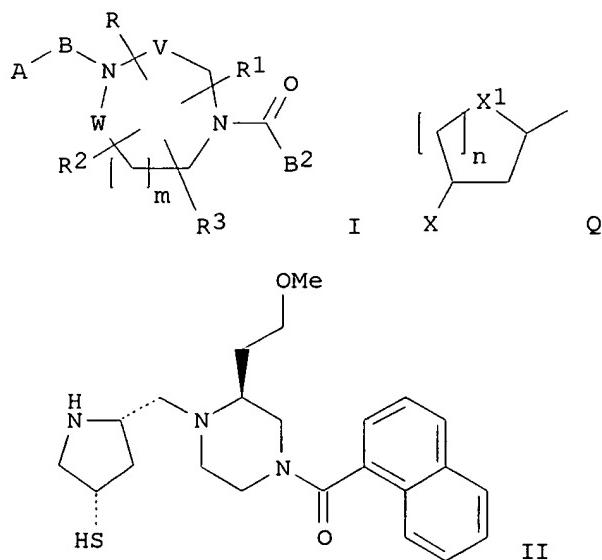
Structure attributes must be viewed using STN Express query preparation.

L2                   QUE ABB=ON PLU=ON L1

=> d bib abs hitstr 15 1-3

L5   ANSWER 1 OF 3 CPLUS COPYRIGHT 2001 ACS  
 AN  1998:323236 CPLUS  
 DN  129:16139  
 TI  Preparation of thioproline- and related group-containing compounds as inhibitors of farnesyl protein transferase  
 IN  Leftheris, Katherina  
 PA  Bristol-Myers Squibb Co., USA  
 SO  PCT Int. Appl., 50 pp.  
 CODEN: PIXXD2  
 DT  Patent  
 LA  English  
 FAN.CNT 1  
 PATENT NO.       KIND   DATE                   APPLICATION NO.   DATE  
 -----       -----   -----                   -----       -----  
 PI  WO 9820001     A1   19980514            WO 1997-US20020 19971104  
 W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE,  
   ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS,

LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD,  
 SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG,  
 KZ, MD, RU, TJ, TM  
 RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR,  
 GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA,  
 GN, ML, MR, NE, SN, TD, TG  
 US 5929077 A 19990727 US 1997-953117 19971017  
 AU 9851648 A1 19980529 AU 1998-51648 19971104  
 PRAI US 1996-29894 19961108  
 WO 1997-US20020 19971104  
 OS MARPAT 129:16139  
 GI



AB The title compds. [I; A = (hetero)cyclic moiety Q; B, V, W = CH<sub>2</sub>, CO; B2 = alkyl, aryl, heterocyclyl; R-R3 = H, alk(en)yl, alkynyl; aryl, heterocyclyl; CONR4R5, etc.; any 2 of R-R3 may be alkylene attached to a single C atom forming a spiro ring; R4, R5 = H, OH, (cyclo)alkyl, (hetero)aryl, etc.; R4R5 may form a 5- 7-membered satd. ring; X = SH, OH, NHR6; X' = NR7, CH<sub>2</sub>, CHNHR8; R6-R8 = H, alkyl; m = 0, 1; n = 1, 2] were prep'd. as inhibitors of farnesyl transferase (no data) which is an enzyme involved in ras oncogene expression. I enantiomers, diastereomers, and pharmaceutically acceptable salts, prodrugs and solvates were claimed. Thus, the compd. II was prep'd. in 12 steps.

IT 207739-00-2P 207739-04-6P 207739-05-7P

207739-06-8P 207739-07-9P 207739-09-1P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of thioproline- and related group-contg. compds, as inhibitors of farnesyl protein transferase)

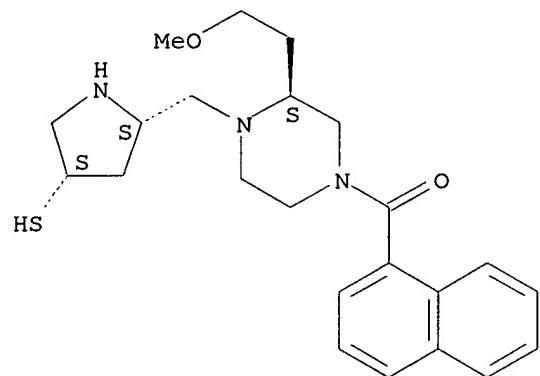
RN 207739-00-2 CAPLUS

CN Piperazine, 1-[(2S,4S)-4-mercaptop-2-pyrrolidinyl]methyl]-2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-, (2S)-, bis(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

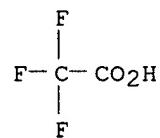
CRN 207738-99-6  
CMF C23 H31 N3 O2 S

Absolute stereochemistry.



CM 2

CRN 76-05-1  
CMF C2 H F3 O2



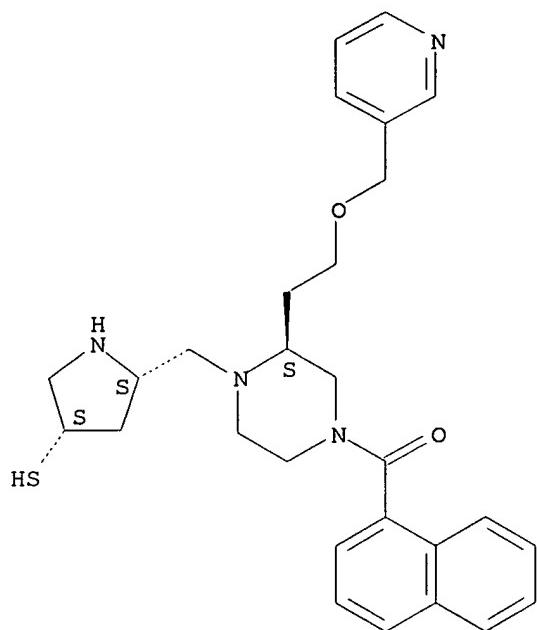
RN 207739-04-6 CAPLUS

CN Piperazine, 1-[(2S,4S)-4-mercaptop-2-pyrrolidinyl]methyl]-4-(1-naphthalenylcarbonyl)-2-[2-(3-pyridinylmethoxy)ethyl]-, (2S)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

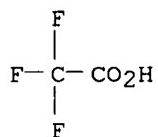
CM 1

CRN 207739-03-5  
CMF C28 H34 N4 O2 S

Absolute stereochemistry.

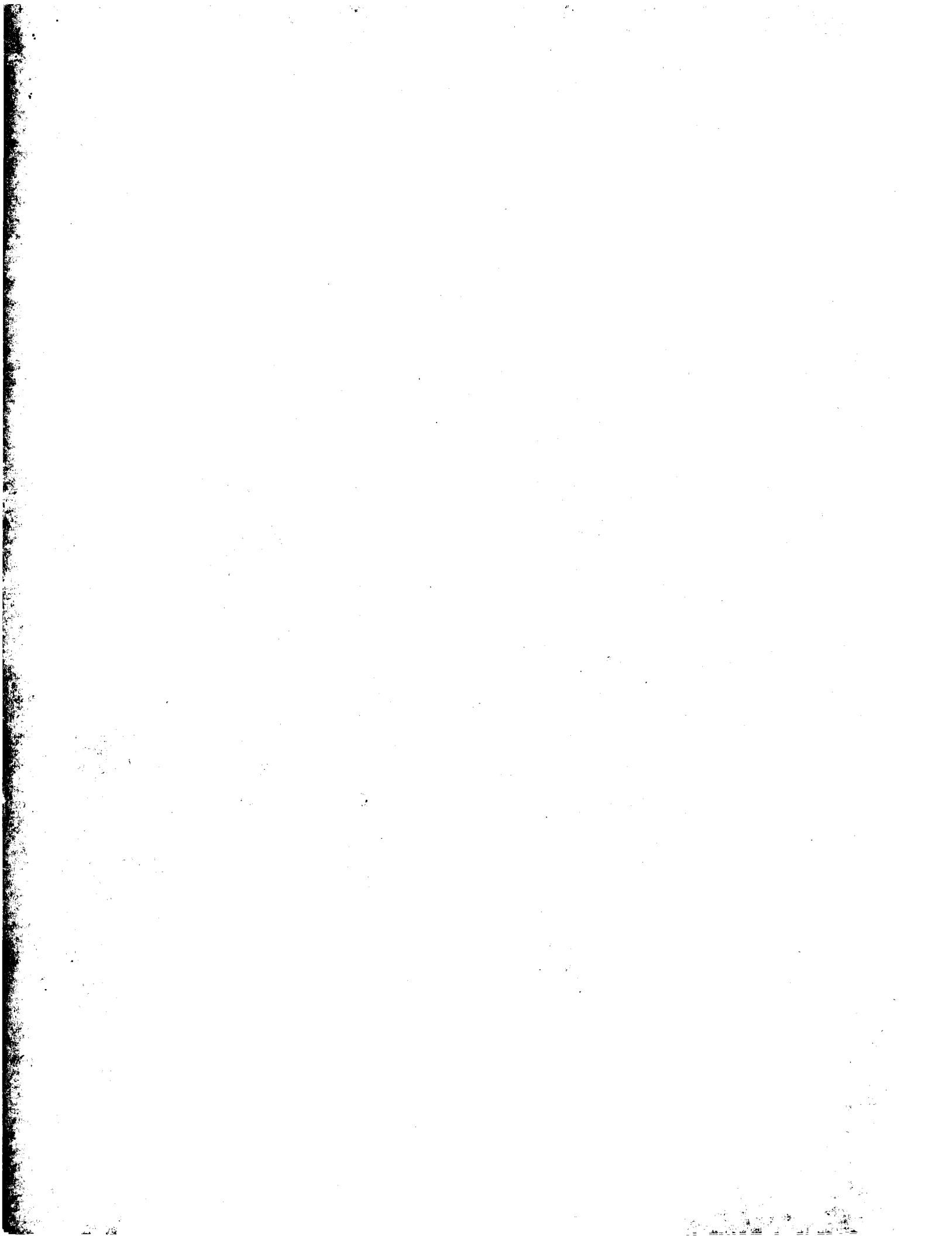


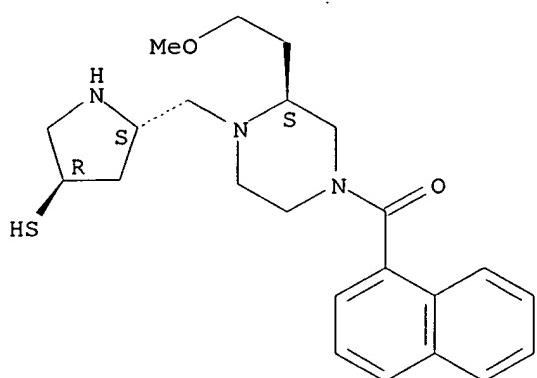
CM 2

CRN 76-05-1  
CMF C2 H F3 O2

RN 207739-05-7 CAPLUS  
 CN Piperazine, 1-[(2S,4R)-4-mercaptop-2-pyrrolidinyl]methyl]-2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-, dihydrochloride, (2S)- (9CI)  
 (CA INDEX NAME)

Absolute stereochemistry.



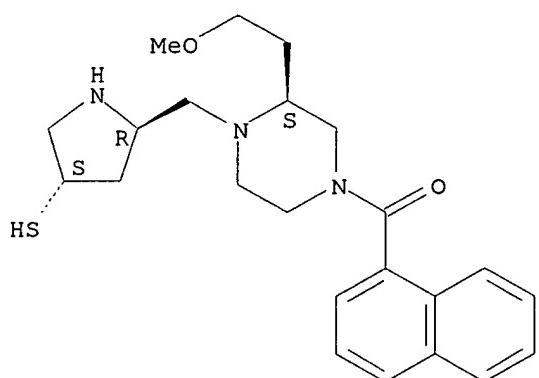


● 2 HCl

RN 207739-06-8 CAPLUS

CN Piperazine, 1-[(2R,4S)-4-mercaptop-2-pyrrolidinyl]methyl]-2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-, dihydrochloride, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

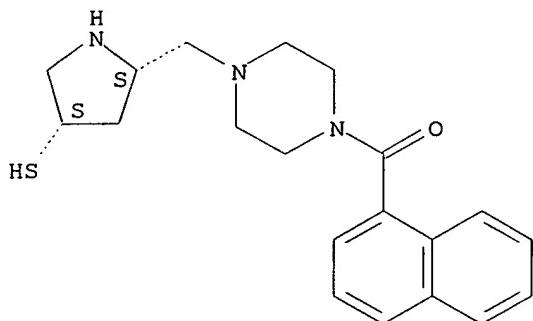


● 2 HCl

RN 207739-07-9 CAPLUS

CN Piperazine, 1-[(2S,4S)-4-mercaptop-2-pyrrolidinyl]methyl]-4-(1-naphthalenylcarbonyl)-, dihydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 HCl

RN 207739-09-1 CAPLUS

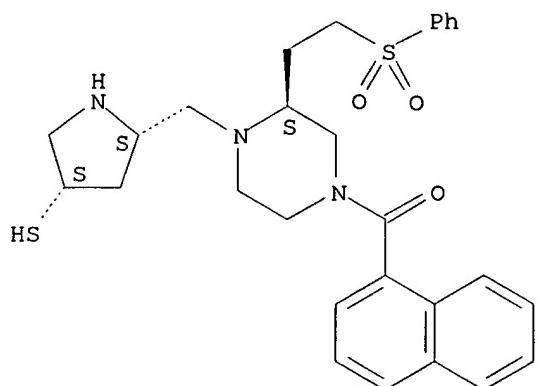
CN Piperazine, 1-[[(2S,4S)-4-mercaptop-2-pyrrolidinyl]methyl]-4-(1-naphthalenylcarbonyl)-2-[2-(phenylsulfonyl)ethyl]-, (2S)-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 207739-08-0

CMF C28 H33 N3 O3 S2

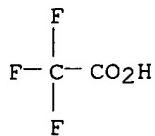
Absolute stereochemistry.



CM 2

CRN 76-05-1

CMF C2 H F3 O2



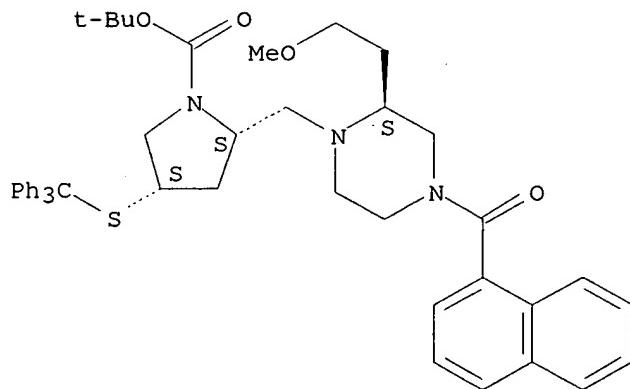
IT 207739-11-5P 207739-14-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of thioproline- and related group-contg. compds, as inhibitors  
of farnesyl protein transferase)

RN 207739-11-5 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[(2S)-2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-1-piperazinylmethyl]-4-[(triphenylmethyl)thio]-, 1,1-dimethylethyl ester, (2S,4S)- (9CI) (CA INDEX NAME)

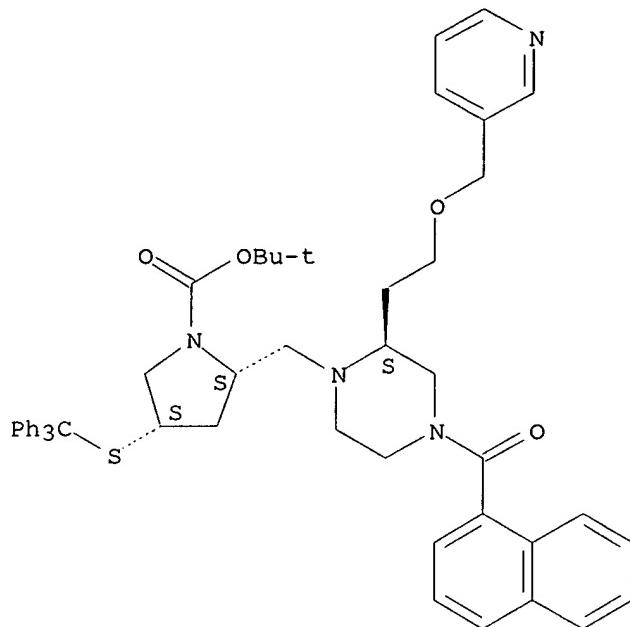
Absolute stereochemistry.



RN 207739-14-8 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[(2S)-4-(1-naphthalenylcarbonyl)-2-[2-(3-pyridinylmethoxy)ethyl]-1-piperazinylmethyl]-4-[(triphenylmethyl)thio]-, 1,1-dimethylethyl ester, (2S,4S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L5 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2001 ACS

AN 1998:147303 CAPLUS

DN 128:204800

TI Preparation of 3-mercaptopyrrolidines as farnesyl protein transferase inhibitors

IN Boyle, Francis Thomas; Wardleworth, James Michael

PA Zeneca Limited, UK; Boyle, Francis Thomas; Wardleworth, James Michael

SO PCT Int. Appl., 93 pp.

CODEN: PIXXD2

DT Patent

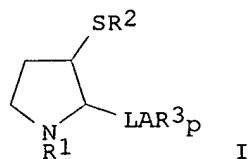
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9807692	A1	19980226	WO 1997-GB2212	19970813
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
	AU 9740208	A1	19980306	AU 1997-40208	19970813
	EP 923545	A1	19990623	EP 1997-937660	19970813
	R:	CH, DE, FR, GB, IT, LI			
	JP 2001500118	T2	20010109	JP 1998-510500	19970813
PRAI	GB 1996-17302		19960817		
	GB 1997-1417		19970124		
	WO 1997-GB2212		19970813		
OS	MARPAT	128:204800			

Applicants

GI



AB The title compds. I [R1 = H, alkyl, COalkyl, etc.; R2 = H, alkyl, COalkyl, etc.; R3 = H, OH, cyano, NO<sub>2</sub>, etc.; p = 0-3, L is a linking moiety; A = phenyl; naphthyl, 5-10 membered monocyclic or bicyclic heteroaryl ring contg. up to 5 heteroatoms], inhibitors of ras farnesylation, were prep'd..

E.g., 3-methyl-N-(2,2-diphenylethyl)-N-(cis)-3-sulfanylpyrrolidin-2-ylbutryamide was prep'd. using 3-(triylsulfanyl)pyrrolidine-2-carboxylic acid as the starting material.

IT 203853-58-1P 203853-95-6P 203854-35-7P

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

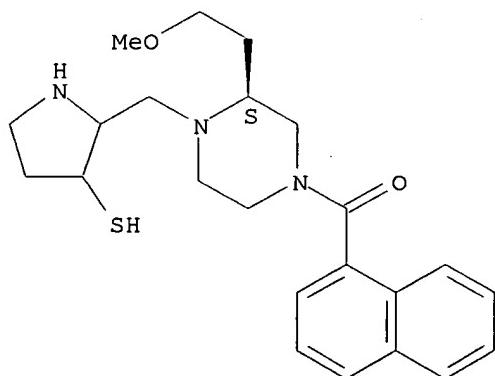
(prepn. of mercaptopyrrolidines as farnesyl protein transferase inhibitors)

RN 203853-58-1 CAPLUS

CN Piperazine,

1-[(3-mercaptop-2-pyrrolidinyl)methyl]-2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-, dihydrochloride, [2(S)]-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



●2 HCl

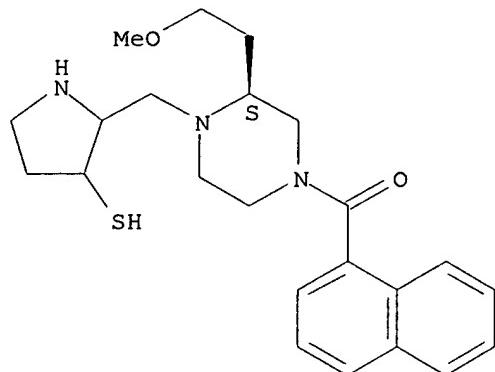
RN 203853-95-6 CAPLUS

CN Piperazine,

1-[(3-mercaptop-2-pyrrolidinyl)methyl]-2-(2-methoxyethyl)-4-(1-

naphthalenylcarbonyl)-, [2(S)]-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

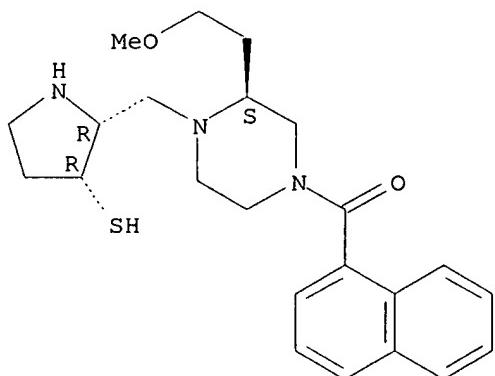


RN 203854-35-7 CAPLUS

CN Piperazine,

1-[(3-mercaptopro-2-pyrrolidinyl)methyl]-2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-, [2R-[2.alpha.(S\*),3.alpha.]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



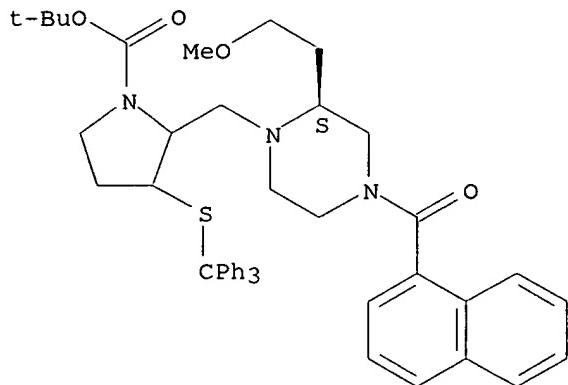
IT 203854-60-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of mercaptopyrrolidines as farnesyl protein transferase  
inhibitors)

RN 203854-60-8 CAPLUS

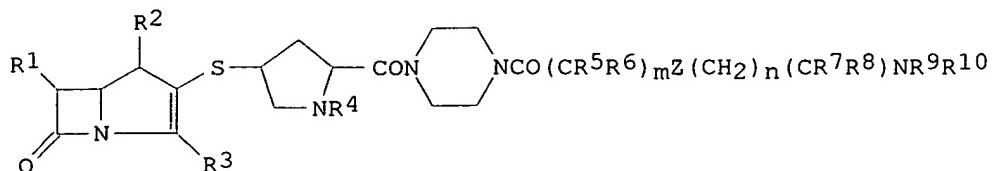
CN 1-Pyrrolidinecarboxylic acid, 2-[[2-(2-methoxyethyl)-4-(1-naphthalenylcarbonyl)-1-piperazinyl]methyl]-3-[(triphenylmethyl)thio]-,  
1,1-dimethylethyl ester, [2(S)]-[partial]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



15 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2001 ACS  
 AN 1993:495224 CAPLUS  
 DN 119:95224  
 TI Preparation of carbapenem derivatives as antibacterial agents  
 IN Nishi, Toshiyuki; Koda, Hiroko; Sugita, Kazuyuki; Ishida, Yohhei;  
     Takemura, Makoto; Hayano, Takeshi  
 PA Daiichi Pharmaceutical Co., Ltd., Japan  
 SO PCT Int. Appl., 48 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9300344	A1	19930107	WO 1992-JP790	19920619
	W: AU, CA, FI, JP, KR, NO, RU, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE				
	JP 05294969	A2	19931109	JP 1992-159017	19920618
	JP 3048196	B2	20000605		
	CA 2111974	AA	19930107	CA 1992-2111974	19920619
	AU 9220002	A1	19930125	AU 1992-20002	19920619
	AU 659172	B2	19950511		
	EP 641795	A1	19950308	EP 1992-913257	19920619
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	RU 2091381	C1	19970927	RU 1993-58465	19920619
	NO 9304670	A	19940218	NO 1993-4670	19931217
PRAI	JP 1991-148469	19910620			
	JP 1992-31054	19920218			
	WO 1992-JP790	19920619			
OS	MARPAT	119:95224			
GI					



**AB** The title compds. [I; R<sub>1</sub> = alkyl, (un)protected hydroxyalkyl; R<sub>2</sub> = H, alkyl; R<sub>3</sub> = CO<sub>2</sub>H or its ester; R<sub>4</sub>, R<sub>9</sub>, R<sub>10</sub> = H, alkyl, NH<sub>2</sub>-protecting group; R<sub>5</sub>, R<sub>6</sub> = H, HO, alkyl, hydroxyalkyl, halo, or R<sub>5</sub>R<sub>6</sub> = C<sub>2</sub>-6 alkylene;

R<sub>7</sub> = H, alkyl, CONH<sub>2</sub>, (un)protected CO<sub>2</sub>H, CONR<sub>7</sub>1R<sub>7</sub>2 where R<sub>7</sub>1, R<sub>7</sub>2 = H, alkyl; R<sub>8</sub> = H, alkyl, hydroxyalkyl or R<sub>7</sub>R<sub>8</sub> = C<sub>2</sub>-6 alkylene; Z = single bond, O, S, (un)substituted CH<sub>2</sub>, NHCO, CONH, or NH], having a potent antibacterial activity against various bacteria, e.g., *Pseudomonas aeruginosa*, low toxicity, and excellent stability against hydrolases, e.g., dehydropeptidase (no data), are prep'd. Thus, 83 mg (Me<sub>2</sub>CH)<sub>2</sub>NET was added to a soln. of 0.2 g p-nitrobenzyl

(1R,5S,6S,8R)-6-(1-hydroxyethyl)-1-methyl-2-oxocarbenam-3-carboxylate in MeCN at 0.degree. followed by 173 mg (PhO)<sub>2</sub>P(O)Cl and after stirring the mixt. at 0.degree. for 1 h and then

cooling it to -35.degree., 80 mg (Me<sub>2</sub>CH)<sub>2</sub>NET and (2S,4S)-4-mercaptop-1-(p-nitrobenzyloxycarbonyl)-2-[(1-[2-(p-nitrobenzyloxycarbonyl)aminoacetyl]piperazin-4-yl)carbonyl]pyrrolidine were added, and the mixt. was stirred at the same temp. for 2 h to give, after hydrogenolysis over PtO<sub>2</sub> in THF-phosphate buffer, (1R,5S,6S,8R,2'S,4'S)-2-[[2-[(1-aminoacetyl)piperazin-4-yl)carbonyl]pyrrolidin-4-yl]thio]-6-(1-hydroxyethyl)-1-methylcarbenem-3-carboxylic acid. A total of 29 I were prep'd.

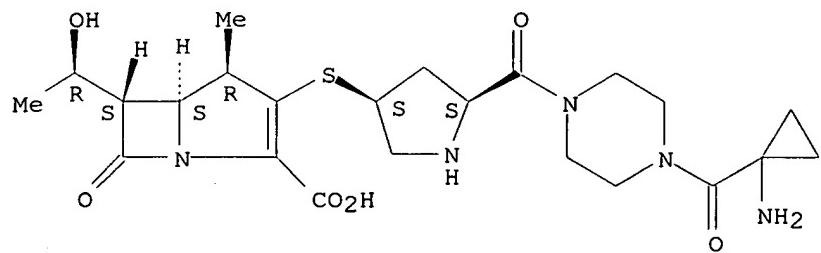
**IT 149137-64-4P**

RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation) (prepn. of, as antibacterial)

**RN 149137-64-4 CAPLUS**

**CN 1-Azabicyclo[3.2.0]hept-2-ene-2-carboxylic acid, 3-[[5-[[4-[(1-aminocyclopropyl)carbonyl]-1-piperazinyl]carbonyl]-3-pyrrolidinyl]thio]-6-(1-hydroxyethyl)-4-methyl-7-oxo-, [4R-[3(3S\*,5S\*),4.alpha.,5.beta.,6.beta.-(R\*)]]- (9CI) (CA INDEX NAME)**

Absolute stereochemistry.



IT 149138-00-1P

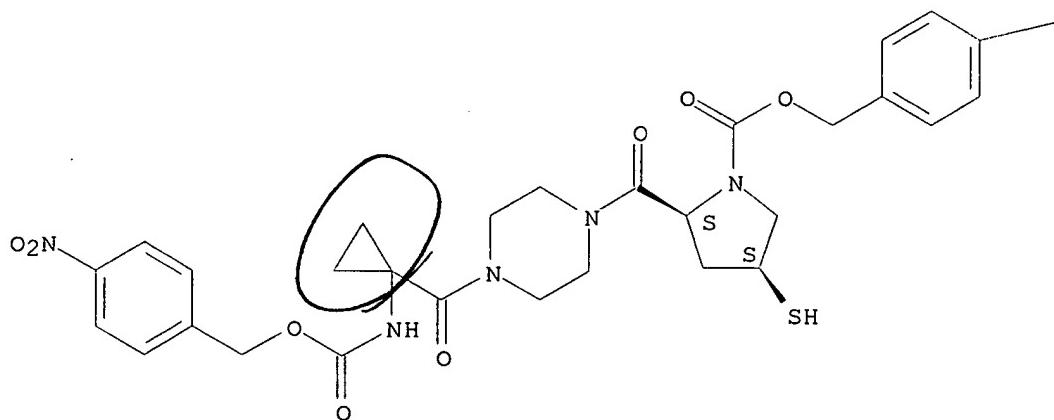
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of, as intermediate for antibacterial carbapenem deriv.)

RN 149138-00-1 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 4-mercaptop-2-[(4-[[[1-[[[4-nitrophenyl)methoxy]carbonyl]amino]cyclopropyl]carbonyl]-1-piperazinyl]carbonyl]-, (4-nitrophenyl)methyl ester, (2S-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

 $\text{---NO}_2$